

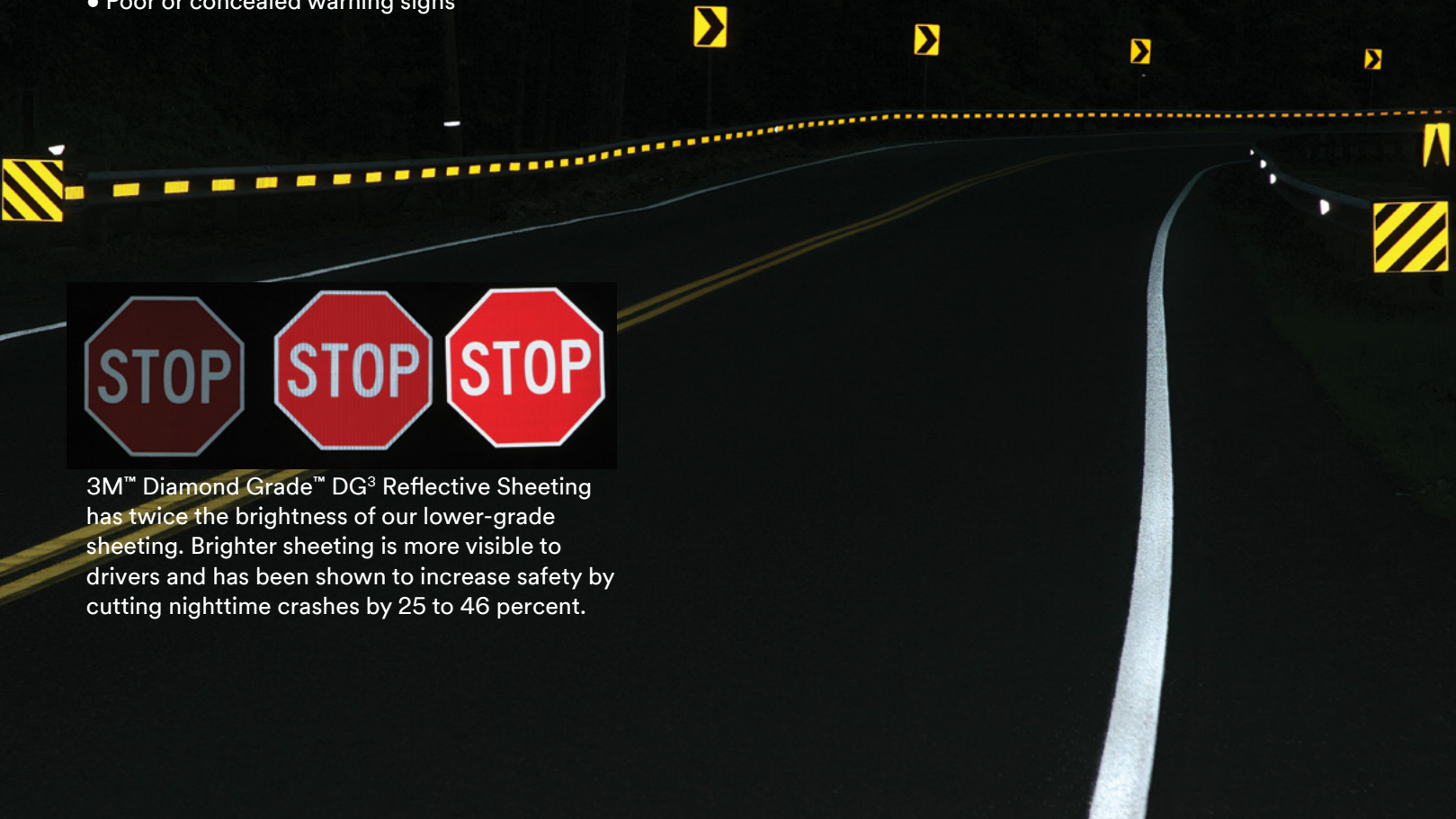
3M Traffic Safety and Security Division

# Outsmart the Dark With 3M™ Diamond Grade™ DG<sup>3</sup> Reflective Sheeting

**Using science to turn black spots into bright spots.**

Black spots are places where the number of crashes is higher than average. Often the reason for black spots is the physical configuration of the road or intersection, such as:

- Sharp corners in a straight road, concealing oncoming traffic
- Hills or winding roads that limit visibility ahead
- Hidden junctions and intersections
- Poor or concealed warning signs



3M™ Diamond Grade™ DG<sup>3</sup> Reflective Sheeting has twice the brightness of our lower-grade sheeting. Brighter sheeting is more visible to drivers and has been shown to increase safety by cutting nighttime crashes by 25 to 46 percent.



## How signage made from 3M™ Diamond Grade™ DG<sup>3</sup> Reflective Sheeting can help make black spots safer.

During the day, and especially at night, 3M™ Diamond Grade™ DG<sup>3</sup> Reflective Sheeting can make a difference by making signage brighter and more visible. Innovative full-cube prismatic technology enables reflective sheeting with the highest optical efficiency. Full-cube sheeting returns more light to drivers across a range of vehicle types and sign geometries. Brighter signs improve safety by giving drivers more time to react.

3M fluorescent technology, coupled with highly retroreflective sheeting, provides increased safety in difficult driving situations, such as work zones, as well as low-light conditions, such as dawn and dusk.

## The technology of traffic safety.

We believe crashes can be prevented. For over 75 years, we've been applying our science to push the boundaries of traffic safety. We're proud to design the systems, services and high-performance materials that will help create a safer future for drivers everywhere.



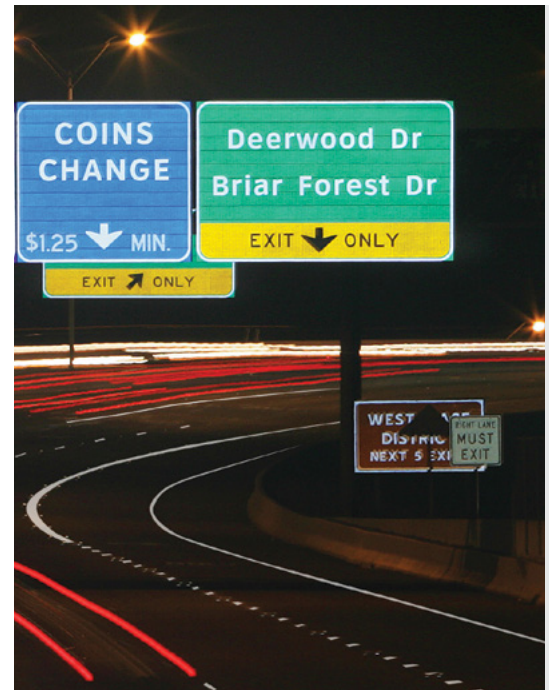
By creating reflective signage that works to reduce the number of black spots, 3M hopes to eliminate serious roadway crashes. Our prismatic sheeting solution contributes to a global traffic safety initiative established by the World Health Organization (WHO) and the United Nations Road Safety Collaboration: Decade of Action for Road Safety 2011–2020. This initiative — in addition to a similar drive launched by transportation leaders in the United States: Toward Zero Deaths — is working toward the goal of stabilizing and reducing the level of road traffic fatalities around the world by 2020.



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## Curved roads at night. A dangerous combination.

According to a 2009 study by the National Highway Traffic Safety Administration, curved roads are more likely to be the scene of fatal run-off-road (ROR) crashes compared with straight roadways. Among the crashes that occurred on curved roads, 90.2% were ROR crashes, while among those that occurred on straight roadways, 62.1% were ROR crashes. In addition, ROR crashes are more likely to occur at night compared with the daytime. Among the crashes that occurred during nighttime, 74.2% were ROR crashes; while among those that occurred during the daytime, 66.5% were ROR crashes.

## More-visible signs result in lower accident rates.

Studies have found that where more-visible signs are installed, crash numbers have fallen 25 to 46% in 3 to 6 years.

*Ripley, D. A., Howard R. Green Company, ITE AB04H313, Quantifying the Safety Benefits of Traffic Control Devices — Benefit-Cost Analysis of Traffic Sign Upgrades, 2005 Mid-Continent Transportation Research Symposium Proceedings*